

# INFORMATION REPORT INFORMATION REPORT

## CENTRAL INTELLIGENCE AGENCY

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S-E-C-R-E-T

COUNTRY Poland

REPORT

25X1

SUBJECT Vacuum Tube Factory in Warsaw

DATE DISTR.

86 SEP 1958

(products and layout)

NO. PAGES

1

REFERENCES

RD

DATE OF INFO.

PLACE &amp; DATE ACQ.

PROCESSING COPY

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report on a vacuum tube factory<sup>1</sup> in Warsaw. The report contains a short list of some of the tubes produced and a sketch of the plant layout.

1. Comment: This is possibly the Kasprzak Radio Lamp Factory.

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# INFORMATION REPORT INFORMATION REPORT

**SECRET**POLISH LIGHT-BULB, VACUUM-TUBE, AND RADIO FACTORIES

1. The ZWLE (Zakłady Wytworcze Lamp Elektrycznych, Electric Light Bulb Factory) is rather inappropriately named, since the plant does not produce electric bulbs alone. Located in the southwestern outskirts of Warsaw, in the Vola Reion, at Karolkowa Street No. 34. One side of the factory faces Gzybowska Street.

The factory is situated in a large area enclosed by a wall; the factory complex covers only a part of this area, most of which is still undeveloped. The main factory building is a structure measuring about 100 by 20 meters and about 50 meters high. It has 11 floors, described later on.

On the west and on the south, <sup>the</sup> plant faces city streets; on the east there is an open field extending to an old castle about one kilometer distant. [REDACTED]

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The plant falls under the jurisdiction of the Ministry of Electric Power and Radio (?).

The director is Engineer Zurkowski, about 45 years old, and the technical chief, Engineer Chlebowski, about 30 years old.

The factory is subdivided into working departments called Ustawiecze.

Employs about 6,000 workers, including about 200 white-collar workers. Some of the departments work on three shifts, some on two shifts, and some on a single shift, depending on the nature of the work.

Production: Electric light bulbs, radio tubes (for civilian use), microtubes for civilian and military radios (there is in the factory a unit for military production [REDACTED]), neon lighting tubes, electric switches, and television tubes (including cathode tubes).

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Note: The factory does not produce the glass bulbs for the electric lights and tubes; these come from other factories in Poland. Nor does the factory produce transistors or radar parts.

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As regards radio tubes, [ ] the following production:

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EBL 21 tube: [ ]

ECH 21 tube: modulating;

EF 22 tube: amplifying;

EM 4 tube: magic eye;

UYIN tube: [ ]

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AZ 1 tube: [ ]

UCH 21 tube: like ECH 21; for syntony (syntonizer);

UBL 21 tube: like EBL 21; [ ]

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6 H 6 tube: [ ]

6 P 3 tube: [ ]

All of these are produced on Polish patents. They are eventually installed in the Pionir and Stolica civilian radio sets produced by another factory, to be mentioned below.

[ ] the department for the assembly of the above-mentioned tubes [ ] was the heart of the factory and employed 150 workers for each of the three shifts. He learned that about 3,600 (?) tubes of each type (?) are produced every 24 hours. He further states that production was not always regular because the various parts going into the tubes were not always received on time; that rejects amounted to as much as 25 percent of the production; that there were sometimes power failures; and that it is therefore difficult to furnish any production data, even of a general kind. Production was organized on the assembly-line system.

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The bulk of the tubes produced are sent to the Kasprzak Factory (named after a Communist hero), described below, which produces radios. It also is located on Karolkowa Street, opposite the factory under discussion (see letter B on the sketch in Attachment No. 1).

Some of the tubes are exported to East Germany.

Zinc, tin, and various resins are obtained from [ ] and East Germany. The glass bulbs for the lights and tubes come from a

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factory (defined by hearsay as "big") in Lower Silesia, in Szklarska Poreba (almost on the Czech border, near Ceplice Zdroj). This factory is reportedly called "Szklarskaja Huta" (Glassworks).

The receipt of raw materials is steady. The factory is said to be the only one in Poland which has completely fulfilled its production plans.

Description of the complex

See letter A on the sketch in Attachment No. 1; the following numbers correspond to those appearing on the sketch.

Note: All the buildings have flat roofs.

1. Brick wall about 2.5 meters high.
2. The main factory building, an 11-story structure measuring about 100 by 20 meters. It is equipped with both passenger and freight elevators.

a. Ground floor: used for storehouse and light-bulb washing department. It is subdivided into the following sections:

P "A" (Partita (?) or Parterre (?) "A"); here are delivered the glass bulbs from the factory in Szklarska Poreba, as well as alcohol, zinc, tin, and various metals and resins, from East Germany, [redacted] and from elsewhere in Poland;

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P "1" (Partita (?) or Parterre (?) "1"), this is the section where the glass bulbs are washed in a solution called Truiclor.

About 100 persons are employed on a single shift [in these two sections].

b. Second floor: department for the production and processing of electric light filaments. Two shifts.

c. Third floor: Two departments: Department E9, where the vacuum tubes and cathode tubes for television sets are assembled; and the department working on military radio sets. [redacted]

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[redacted] the per-

sonnel employed here are military and [redacted] the technical foremen wear

uniforms. [redacted] in the department for the production of television tubes and cathode tubes, rejects amounted to at least 25 percent of the output.

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Operations on this floor are carried on in three shifts.

d. Fourth floor: Chemical laboratories, operating on in a single shift.

e. Fifth floor: Department for the production of radio-tube filaments, employing about 200 workers on a single shift.

f. Sixth floor: Department for the production of cathodes and anodes.

[redacted] not know the number of workers here. Single shift.

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g. Seventh floor: subdivided into three departments:

"E-1", where tubes for civilian radios are assembled;

"E-3", where filaments are produced, perhaps for microtubes; and

"E-6", where microtubes for civilian and military radios are assembled.

From here the microtubes go to the military production department on the third floor.

"E-1" [redacted] is the main unit of the complex. It employs 150 workers on each of three shifts. The types of tubes assembled have already been mentioned under "Production."

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Equipment: [redacted] four gas pumps for "soldering the tubes".

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The pumps came from East Germany.

h. Eighth floor: Department for the production of circuits, diodes, anodes, screens, and bridges for tubes, operating on two shifts.

i. Ninth floor: Control department for the Eighth floor. It is practically a mezzanine of the Eighth floor, where the department foremen check the parts produced.

j. Tenth floor: [redacted]

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k. Eleventh floor: Department for the production of tube sockets and for washing various tube parts, operating on two shifts.

3. Two buildings measuring about 40 by 10 meters, one used as a machine shop and the other as a technical and metalworking department.

4. Transformer shed.

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5. A building measuring about 30 by 10 meters housing the firemen and three tank trucks. [redacted]

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6. A building exactly similar to that in No. 5, used as a garage.

7. Administration building; a 3-story structure measuring about 20 by 8 meters.

8. Entrance for men.

9. Entrance for women.

Electric power is brought in at 5,000 volts and is transformed to 220 and 125 volts. Sometimes there are power failures.

Vehicles of the complex:

About half a dozen trucks.

Financial situation: profitable.

Insurance of personnel: [redacted] in case of sickness the worker receives 75 percent of his pay, but [redacted] does not know for how long.

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Pay: [redacted] an apprentice skilled worker [redacted] received 1,100 zlotys per month. A skilled worker received about 1,600 zlotys per month, and an engineer about 2,200.

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The complex is guarded by uniformed and armed men and women factory guards. The women guards have the duty of watching the women's exit and to search the women workers during sporadic and unforeseen checkups.

The guards wear red caps.

The morale of the workers is definitely low, because of the insufficient pay to meet the cost of living, the overbearing supervision, and the risk of diminution of benefits if the plant as a whole does not fulfill production plans.

Documents required for admission to the plant: The workers have a special white identity card bearing their photograph. There was a time when a worker did not present any photographs upon applying for work at the plant.

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During the last several months, however, both the new and the old workers have had to carry three wallet-sized photographs, one of which was pasted on the identity card.

Pilferage: The workers have many different ways of "requisitioning" radio tubes, which they sell at a <sup>low</sup> ~~reduced~~ price.

The official cost of the different tubes runs from 36 to 70 zlotys.

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## II. Kasprzak Radio Factory in Warsaw

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Location: On Karolkowa Street (see letter B on sketch in Attachment No. 1).

[redacted] the factory complex consists of "many" buildings and is surrounded by a wall. It produces the following radios: "Pionir," of various types, including those with long-playing record players; "Stolica". and "Szarotka," a type of portable radio which was until recently manufactured only with long and medium-wave bands. It is now produced in sets with short, medium, and long-wave bands. [redacted]

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[redacted] the "Szarotka" portable radio has weak volume.

The tubes for the "Pionir" and "Stolica" radios come from the ZWLE plant [redacted]

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III. "IVICNO" Factory in Piaseczno



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The following information was obtained from certain workers who transferred to this factory from the ZWLE plant 

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The new factory, defined by hearsay as "small," has been in operation since 1956. It produces radio tubes and apparently military communications equipment also.

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Legend

"A" Factory producing electric light bulbs and radio tubes.

1. Brick wall about 2.5 meters high.
2. 11 -story building measuring about 100 by 20 meters.

Ground floor:

Department P"A" - storehouse for glass bulbs, alcohol, zinc, tin, and various other metals and resins.

Department P"1" - department for washing glass bulbs.

Second floor:

Department producing and processing filaments for electric light bulbs.

[Third floor: two departments:

Department E9 where vacuum and cathode tubes for television sets are assembled;

The department working on military radio sets.]

Fourth floor:

Department of chemical laboratories.

Fifth floor:

Department producing filaments for radio tubes.

Sixth floor:

Department producing cathodes and anodes.

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Seventh floor: three departments:

Department "E-1" - assembly of tubes for civilian radios;

Department "E-3" - producing filaments, perhaps for microtubes;

Department "E-6" - assembly of microtubes for civilian and military radios.

Eighth floor:

Department producing circuits, diodes, anodes, screens, and vacuum-tube bridges.

Ninth floor:

Department for checking on products from eighth floor.

Tenth floor:

no information on this floor.

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Eleventh floor:

Department producing tube sockets and department for washing various tube parts.

3. Buildings used:

One as a machine shop for the complex; one as a technical and metal-working department.

4. Transformer shed.

5. Building used as firehouse.

6. Garage.

7. Administration building.

8. Entrance for men.

9. Entrance for women.

"B" Kasprzak Radio Factory.

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